

TS 0854 PCTN E W   C L A I M S

1. Process for separating an emulsion of a bituminous oil and water into a liquid water phase and a liquid bituminous oil phase, wherein the following steps are performed:

5 (a) raising the temperature of the bituminous oil/water emulsion having a temperature of below 100 °C to a temperature of above 140 °C, and

10 (b) performing a phase separation wherein a liquid water phase and a liquid bituminous oil phase are obtained, wherein the heating of the emulsion in step (a) is effected by first mixing part of liquid bituminous oil phase obtained in step (b) having a temperature of above 140 °C with the bituminous oil/water emulsion and subsequently raising the temperature of the resulting mixture to a temperature of above 140 °C by making use of indirect heat exchange means.

2. Process according to claim 1, wherein in step (a) the temperature is raised to a value of between 140-200 °C.

3. Process according to claim 2, wherein in step (a) the temperature is raised to a value of between 160-200 °C.

4. Process according to claim 3, wherein the temperature of the resulting mixture is raised from a value of between 120-150 °C to a value of between 160-180 °C by making use of the indirect heat exchange means.

5. Process according to any one of claims 1-4, wherein the pressure in step (b) is sufficiently high in order to obtain both phases in the liquid state.

6. Process according to claim 5, wherein in step (b) the liquid water phase has a pH of below 7.

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7. Process according to claim 6, wherein the pH of the liquid water phase is between 4 and 6.

8. Process according to any one of claims claim 1-7, wherein the starting emulsion has a water content of between 10-40% by weight, a surfactants content of between 0.01-5% by weight and an oil content of between 60-85% by weight, wherein the oil alone has a viscosity of above 305 Pa.s at 20 °C.

9. Gasification process for preparing synthesis gas, wherein a liquid bituminous oil is obtained according to the process according to any one of claims 1-8 and wherein said liquid bituminous oil, having a temperature of above 140 °C, is fed to a gasification unit in which synthesis gas is obtained.

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